

Abstract**[Project Information]**

Project Title : Research on Quantification of Roadmap Toward Climate Neutral Society in Asian Developing Countries

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[Abstract]

In order to realize the 1.5°C target agreed to in the Paris Agreement, not only developed countries but also developing countries are required to make efforts to contribute to a climate neutral society. The Plan for Global Warming Countermeasures, which was approved by the Cabinet in February 2025, includes “supporting the formulation of long-term strategies and revision of NDCs using the Asia-Pacific Integrated Model (AIM)” as part of Japan's support for developing countries, and calls for the development of models that contribute to the evaluation of climate mitigation policies in each country and analyses based on these models.

In this research project, based on the framework of the AIM, we have developed a power plan model, a transport model, and a food demand model for Asian developing countries to enable social implementation of measures in highly important areas such as power generation, transportation, and food, in addition to the evaluation of macro climate mitigation measures.

These newly developed models were applied to Thailand, Indonesia and other countries in collaboration with researchers in these countries, and were also used in conjunction with the integrated models, the technology selection model, named AIM/Enduse model, and the computable general equilibrium model, named AIM/CGE model. Then, quantitative analyses have been conducted on the contribution of each sector's efforts toward a climate neutral society in each country.

Some of the results have been provided to national governments through collaborating researchers in those countries. For example, in the case of Thailand, some of the results of this study were cited in the long-term strategy and the biennial transparency report submitted to the UNFCCC

in 2022 and 2024, respectively.

In addition, training workshops were held to apply the models to various countries, and manuals were developed to make it possible to apply the models to other countries. In collaboration with the Ministry of the Environment, discussions have been initiated for application of the models to other countries, such as Bangladesh and Vietnam.

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